\Orchestrating a brighter world NEC

Professional Installation Projectors with Laser Light Source

PH3501QL/PH2601QL Laser Projector

Powerful 3-chip 1.38" DLP installation projectors with the latest RB laser light source supports new, demanding projection conditions and achieve a high brightness of 40,000 centre lumens*, a high resolution and a wide colour gamut.

* PH3501QL

PH3501QL

40,000 centre lumens 35,000 lumens	4K	169 kg*

PH2601QL

30,000 centre lumens 26,000 lumens	4K	169 kg*

* Not including lens and NP-LV01BD

PICTURE BY DLP TEXAS INSTRUMENTS

High Brightness, High Resolution and Wide Colour Gamut

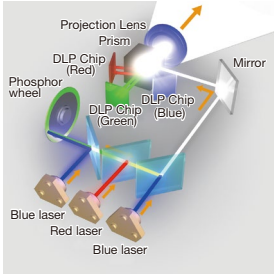
High Brightness by NEC's Unique Light Source Design

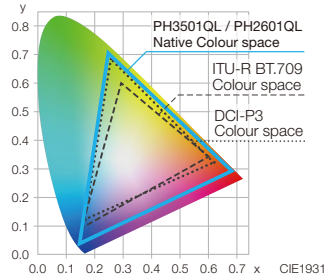
Employing a highly heat-resistant phosphor wheel and highly reliable phosphor material, the projectors bring hassle free operation without light source replacement for up to 20,000 hours*. In addition, NEC's unique light source design (RB Laser) achieves a high brightness of 40,000 center lumens** and a wide colour gamut at the same time.

*Time at which the laser light source is at half brightness; not a guarantee time. ** PH3501QL

The Wide Colour Gamut that covers DCI-P3

The red and blue laser sources and green phosphor create the three primary colours. Thanks to this technology, the projector can output the DCI-P3 colour space without any filter to increase chromatic purity. In NEC's unique laser-beam source layout, the high brightness and the wide colour gamut are compatible. It encompasses the colour gamut of ITU-R BT.709 and DCI-P3, which expands the possibilities of the picture production through the overwhelming colour gamut.



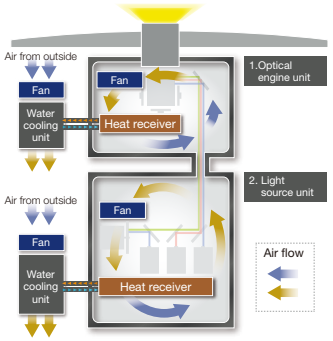


High Resolution of True 4K

The projectors employ a 1.38" True 4K (4,096 × 2,160) DLP chip that faithfully reproduces the input video by using a massive number of pixels to display 4K video dot-by-dot.

Dust Proof / Smoke Proof Optical Unit

The optical engine and laser light source unit have been designed to be completely sealed. This prevent microscopic particles like a smoke from intruding into the sealed optical unit and adhering to the optical components, which provides high reliability.



Cinema Quality Picture

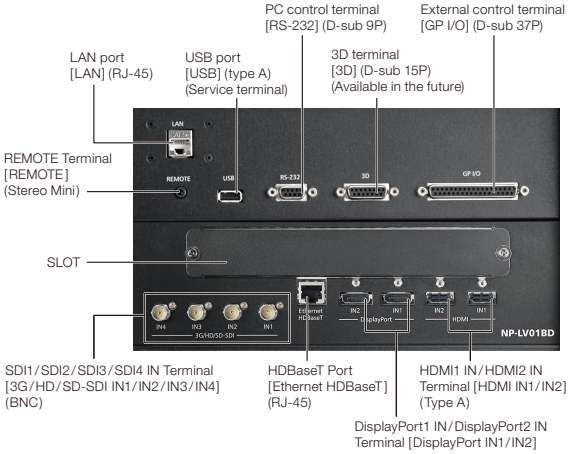
NEC's unique video processor, which was developed with technology that was fostered in development of the Digital Cinema Projector and image processing knowledge that was accumulated over the long-term, brings excellent picture quality through rich gradation expression and high-definition through advanced video processing technology.

Cinema Quality Picture

Other Features

- Mechanical shutter to protect DMD and optical parts
- Easy of lift
- Metal Filter - No replacement required
- ITU-R BT.2020-compatible support through emulation mode and HDR support
- Rich 4K applicable interface and OPS slot option for expandability
- Advanced colour calibration appropriate for the installation environment
- User-generated 4K logo images can be registered
- Widest application support – portrait mode projection, 360 degree free tilt installation, and unique geometric adjustment offers unrivalled installation capability
- Picture by picture function

Terminals



Remote control

(included accessory)

Options

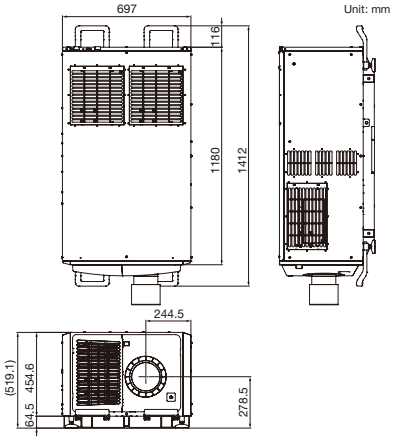
LV Kit
NP-LV01BD*
(Essential optional product)

* Be sure to use this projector in combination with the NP-LV01BD.

Optional Lenses

L2K-10F1 **L2K-30ZM**
L4K-11ZM **L2K-43ZM1**
L4K-15ZM **L2K-55ZM1**
L4K-20ZM

Cabinet dimensions



Specifications

Model			NP-PH3501QL	NP-PH2601QL
Method			Reflection by 3 chip DMD	
Specifications of main parts	Main panel	Size/Pixels*1	1.38", aspect ratio: 17:9 / 8,847,360*1 (4,096 dots × 2,160 lines)	
	Projection lenses	Zoom/Focus/Lens shifting	Powered	
	Light source		Red & Blue: Laser diode / Green: Phosphor	
	Light source recommended replace time*2	FAN AUTO mode	20,000 hours (50% brightness)*2	20,000 hours (50% brightness)*2
		FAN LOW mode	17,000 hours (50% brightness)*2	20,000 hours (50% brightness)*2
Brightness *3*4			40,000 centre lumens*5 (35,000 lumens)	30,000 centre lumens*5 (26,000 lumens)
Contrast ratio (White / Black)			30,000:1 with dynamic contrast	
Quietness		FAN AUTO mode	55 dB	
		FAN LOW mode	53 dB	
Input connectors	PC control terminal		D-Sub 9-pin × 1 (RS-232C)	
	USB port		USB type A × 1 (Service terminal)	
	LAN port (Ethernet)		RJ-45 × 1 (Wired LAN) *Control support only	
	REMOTE terminal		Stereo mini jack × 1	
	3D		D-Sub 15-pin × 1 (Available in the future)	
	External control terminal		D-Sub 37-pin × 1 (GP I/O port)	
Usage environment	Operating temperature		5 to 40°C*6, operating humidity: 10 to 85% (Non-Condensing)	
	Storage temperature		–10 to 50°C, storage humidity: 10 to 85% (Non-Condensing)	
	Operating altitude		0 to 2,600 m	
Power supply			200–240 V AC, 50 / 60 Hz	
Power consumption with NP-LV01BD	Normal		4,705 W	3,665 W
	Standby (NORMAL)		205 W	
Input current			Single: 30 A / Dual: 4.9 A + 25.1 A	
Dimensions (W × D × H)			697 × 1,180 × 455 mm (Not including protruding portions and lens)	
Weight			169.0 kg (Not including lens and NP-LV01BD)	

Model			NP-LV01BD
Colour reproducibility			10-bit colour processing (approx. 1.07 billion colours)
Maximum display resolution (horizontal × vertical)			Digital 4K (4,096 × 2,160), Pixel clock frequency: less than 600 MHz
Keystone correction	Horizontal		Manual, Approx. ± 40 Max degrees
	Vertical		Manual, Approx. ± 30 Max degrees
Scanning frequency	Horizontal	(Digital)	15 kHz, 24 to 153 kHz to VESA standard
	Vertical	(Digital)	23.98, 24, 25, 29.97, 30, 48 Hz, 50 to 85 Hz, 100, 120 Hz to VESA standard
Input terminal	HDMI®	Video input	Type A 19-pin × 2 Deep Colour: 8 bit, 10 bit, 12 bit, Colourimetry: RGB, YCbCr444, YCbCr422 HDCP*6 1.4 / 2.2, Lip sync, 4K
	DisplayPort™	Video input	DisplayPort 20-pin connector × 1 Main Link rates: 5.4 Gbps / 2.7 Gbps / 1.62 Gbps per lane, Main Link: 1 / 2 / 4 Lane Deep Colour: 6 bit, 8 bit, 10 bit, Colourimetry: RGB, YCbCr444, YCbCr422 HDCP*6 1.3
	3G / HD / SD-SDI	Video input	BNC 1 pin × 4 (Single / Dual / Quad input) Input signal: SMPTE259M / SMPTE292M / SMPTE424M Colourimetry: RGB, YCbCr444, YCbCr422
	HDBaseT™ (Ethernet)	Video input	RJ45 × 1, 100BASE-TX Deep Colour: 8 bit, 10 bit, 12 bit, Colourimetry: RGB, YCbCr444, YCbCr422 Lip sync, 4K
Slot			OPS compatible slot × 1 For mounting separately sold options (SBC)
Usage environment	Operating temperature		5 to 40°C, operating humidity: 10 to 85% (Non-Condensing)
	Storage temperature		–10 to 50°C, storage humidity: 10 to 85% (Non-Condensing)
	Operating altitude		0 to 2,600 m

*1: Effective pixels are more than 99.99%.
*2: Except Phosphor wheel, Diffuser motor and FAN in Light source unit, and "Not guaranteed".
*3: Compliant with ISO21118-2012.
*4: Indicates the average value of all products at shipping. This is the light output value that results from setting [PRESET] to [HIGH-BRIGHT] and setting [LIGHT ADJUST] to [100%]. If any other mode is selected for [PRESET], the brightness becomes lower.
*5: Measured at centre area of projector screen.
*6: If you are unable to view material via the HDMI DisplayPort or HDBaseT input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision or intention of the HDCP community. (Digital Content Protection, LLC).

- This product is classified as Class 1 of IEC60825-1 Third edition 2014 and as RG3 of IEC62471-5 First edition 2015.
- These specifications and the product's design are subject to change without notice.

Optional lens specifications

Model name		L2K-10F1	L4K-11ZM	L4K-15ZM	L4K-20ZM	L2K-30ZM	L2K-43ZM1	L2K-55ZM1
Lens Type		Fixed Lens	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens	Zoom Lens
Lens Memory		No	Yes					
Zoom		–	Powered					
F# (Wide – Tele)		2.5	2.5–2.5	2.5–2.5	2.5–2.5	2.5–2.5	2.5–2.5	2.5–2.5
f		28.95 mm	38.5–53.7 mm	47.5–65.6 mm	61.4–105.2 mm	85.0–121.63 mm	122.76–172.33 mm	156.54–243.12 mm
Throw ratio		0.99	1.33–1.84	1.62–2.24	2.11–3.57	2.89–4.19	4.17–5.88	5.33–8.34
Zoom Ratio		–	1.4	1.4	1.7	1.4	1.4	1.6
Screen Size		100"–1000"	100"–1000"	100"–1000"	100"–1000"	100"–1000"	100"–1000"	100"–1000"
Light Output	NP-PH3501QL	35,000 lm	36,100 lm	35,900 lm	35,000 lm	31,700 lm	31,500 lm	31,300 lm
	NP-PH2601QL	26,000 lm	26,800 lm	26,700 lm	26,000 lm	23,500 lm	23,400 lm	23,300 lm
Lens Shift @3840× 2160	Vertical	+0.34 V to –0.34 V	+0.55 V to –0.55 V	+0.55 V to –0.55 V	+0.55 V to –0.55 V	+0.34 V to –0.34 V	+0.34 V to –0.34 V	+0.37 V to –0.37 V
	Horizontal	+0.12 H to –0.12 H	+0.22 H to –0.22 H	+0.22 H to –0.22 H	+0.22 H to –0.22 H	+0.12 H to –0.12 H	+0.12 H to –0.12 H	+0.14 H to –0.14 H
Weight		6.8 kg	8.6 kg	7.7 kg	8.9 kg	7.0 kg	7.1 kg	7.6 kg

Note) Throw Ratio is 3,840 × 2,160 output value.

- This device is used in combination with NP-LV01BD (sold separately) and the projector main unit.
- The picture sent from the connected device is then projected onto the screen.
- Note that it cannot be used with just the projector main unit.
- This brochure explains mainly the operation of the PH3501QL used in combination with NP-LV01BD.

- Do not stare into the lens during use.
- The projector can be unplugged immediately after it is turned off. Parts of the projector become heated during operation.
- Use caution when picking up the projector immediately after it has been operating.

NEC Display Solutions, Ltd.
4-28, Mita 1-chome, Minato-ku, Tokyo 108-0073, Japan

https://www.nec-display.com/ap/

Cat. No. WDPJ-1802-0012NF